

# ±10 kN ±100 Nm LINEAR-TORSION PNEUMATIC WEDGE ACTION GRIPS

2742-315

Designed to suit ElectroPuls® 10000 systems, the 2742-315 pneumatic wedge action grips are suitable for tension, compression, torsion and reverse-stress testing on a wide range of specimens and materials. The grips are pneumatically operated directly from the machine handset and the open-fronted design provides easy specimen insertion, positioning and clamping.

## PRINCIPLE OF OPERATION

The single-acting wedge action principle of these grips is designed to clamp a specimen without applying a compressive load, which could cause a specimen to buckle. The retracting movement of the grip bodies helps to reduce compressive loads that are normally caused when clamping specimens.

The open front design permits quick and easy changing of specimens and jaw faces. Jaw faces optimize gripping performance whilst the serrated faces are designed to minimize damage to the specimen surface.

## APPLICATION RANGE

- Types of loading: Tension, compression, torsion or reverse-stress testing
- Specimen geometries: Flat or round specimens
- Specimen material: Metallics, Plastics, Composites, Biomaterials
- Temperature range: Ambient only



±10 kN (2250 lbf) linear-torsion pneumatic wedge action grips

## FEATURES

- Dynamic Linear Capacity: ±10 kN (±2250 lbf)
- Dynamic Torque Capacity: Up to ±100 Nm (±880 lbf.in)
- Independent upper and lower jaw faces opening and closing via the handset
- Enhanced usability thanks to software feedback of grip status
- Enhanced control and repeatability of specimen gripping
- Suitable for linear and torsion, including full reverse-stress dynamic testing
- Open-fronted design for quick and easy specimen insertion from the front
- Self-tightening, moving body wedge design eliminates slippage and prevents specimen loading
- Interchangeable jaw faces for gripping different materials and specimen geometries and sizes
- Secure operation thanks to built-in adjusters that ensure there is no rotary backlash
- Uses standard compressed-air supply
- Requires no attachment kits when mounting to ElectroPuls E10000 systems

## SPECIFICATIONS

Maximum Force Capacity	kN	±10
	lbf	±2250
Maximum Torque Capacity*	Nm	±100
	lbf.in	±880
Grip Mass	kg	10.5
	lbs	23.14
A	mm	210
	in	8.26
B	mm	180
	in	7.08
C	mm	230
	in	9.05
D	mm	88
	in	3.46
E	mm	60
	in	2.36
F	mm	108
	in	4.25
G	mm	132
	in	5.19
Air Supply Connection		1/8" quick connectors
Mechanical Interface		6 x M8 clearance holes on 75 mm PCD

\*Maximum Torque Capacity is dependant on specimen geometry and material

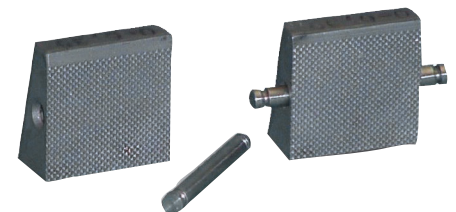
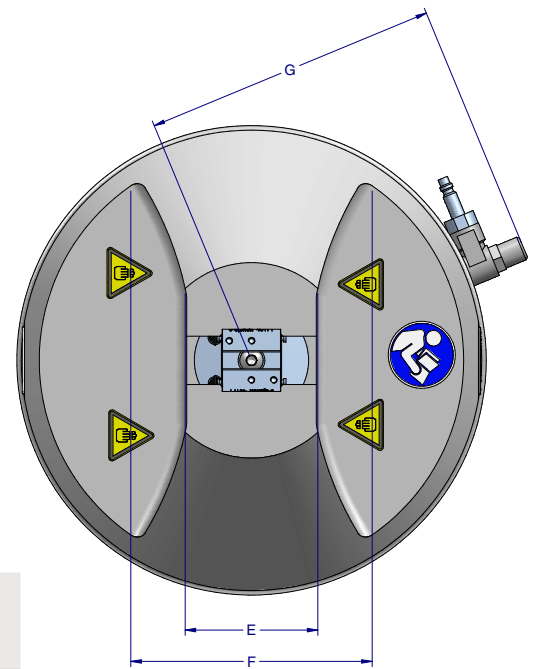
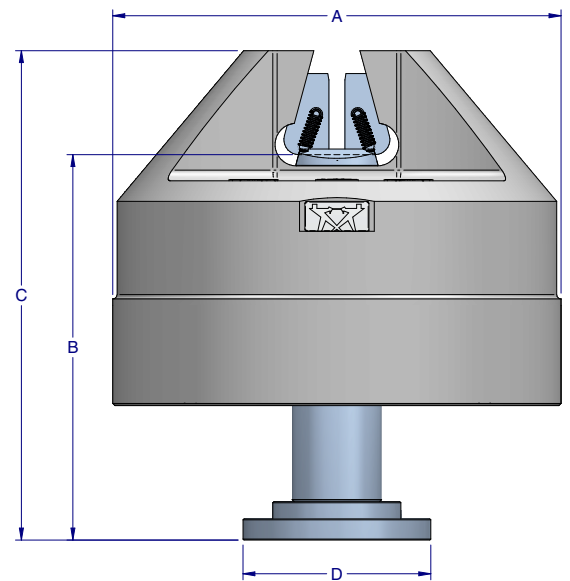
## COMPATIBLE ACCESSORIES

Catalog Number	Description
2718-013	Pneumatic Air Kit for ElectroPuls Systems

## JAW FACES

Catalog Number	Specimen Type	Specimen Thickness		Clamping Area (W x H)
		mm	in	
2703-801	Flat	0 to 6.3	0 to 0.25	26 mm x 38 mm (1.0 in x 1.5 in)
2703-802	Flat	6.3 to 12.7	0.25 to 0.50	26 mm x 38 mm (1.0 in x 1.5 in)
2703-803	Round	Ø 3.0 to 7.8	0.12 to 0.31	26 mm x 38 mm (1.0 in x 1.5 in)
2703-804	Round	Ø 7.1 to 12.7	0.28 to 0.50	26 mm x 38 mm (1.0 in x 1.5 in)
2703-807	Round	Ø 12.4 to 18.0	0.49 to 0.71	26 mm x 38 mm (1.0 in x 1.5 in)

- Notes: 1. Jaw face catalogue number provides four faces  
 2. Jaw faces are hardened to 48 to 52 Rc, unless otherwise specified  
 3. All faces are diamond serrated 45°



Flat Serrated Jaw Faces

[www.instron.com](http://www.instron.com)



Worldwide Headquarters  
 825 University Ave, Norwood, MA 02062-2643, USA  
 Tel: +1 800 564 8378 or +1 781 575 5000

European Headquarters  
 Coronation Road, High Wycombe, Bucks HP12 3SY, UK  
 Tel: +44 1494 464646

CEAST Headquarters  
 Via Airauda 12, 10044 Pianezza TO, Italy  
 Tel: +39 011 968 5511